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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/880,672	06/13/2001	Hyun-Dong Lee	678-659 (P9670)	5097
28249 7590 02/01/2007 DILWORTH & BARRESE, LLP 333 EARLE OVINGTON BLVD. SUITE 702 UNIONDALE, NY 11553			EXAMINER KNOWLIN, THJUAN P	
			ART UNIT 2614	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		02/01/2007	PAPER	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/880,672	LEE, HYUN-DONG	
	<b>Examiner</b>	<b>Art Unit</b>	
	Thjuan P. Knowlin	2614	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 13 November 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 June 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Amendment***

1. Applicant's amendment filed on November 13, 2006 has been entered. No claims have been entered. Claims 4-8 have been cancelled. No claims have been added. Claims 1-3 are still pending in this application, with claim 1 being independent.

### ***Claim Rejections - 35 USC § 102***

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 1-3 are rejected under 35 U.S.C. 102(e) as being anticipated by Bank et al (US Patent Application Publication No.: US 2003/0059069 A1)

4. In regards to claim 1, Bank discloses a panel-type speaker (e.g., transducer, actuator, exciter) (See Fig. 2 and transducer 86) mounting structure (See Fig. 1 - Fig. 2 and paragraph [0005]) comprising: a liquid crystal display (LCD) window (See Fig. 2 and display window 66) having a first surface exposed on a top end (See Fig. 1 - Fig. 2 and front part 62) and of an upper casing frame of a main body and a second surface facing an interior (See Fig. 1 - Fig. 2 and back part 60) or the main body; and an LCD module (See Fig. 2 and display/LCD display 108) disposed under the LCD window with a gap between the LCD module and the LCD window within the main body (See paragraph [0066 - 0067]), the LCD module having a polarizing plate (e.g., piezoelectric material/plate) having an upper surface (See Fig. 2, bimorph beam 90 and Fig. 5,

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piezoelectric beam 43) facing the second surface of the LCD window and a lower surface (See Fig. 2, bimorph beam 88 and Fig. 5, piezoelectric beam 51) opposite the upper surface, the polarizing plate being divided into a first portion (e.g., bimorph beam 90 and piezoelectric beam 43) located adjacent to the LCD window and a second portion (e.g., bimorph beam 88 and piezoelectric beam 51) extended from the first portion, for mounting a panel-type speaker to the lower surface of the second portion of the polarizing plate (See Fig. 2, Fig. 5, paragraph [0054 - 0055], paragraph [0059], and paragraph [0061]).

5. In regards to claim 2, Bank discloses the panel-type speaker mounting structure, wherein the second portion (See Fig. 2, bimorph beam 88 and Fig. 5, bimorph beam 51) of the plate is extended in a predetermined direction below the LCD window away from a top portion of a device (See Fig. 2, Fig. 5, paragraph [0054 - 0055], and paragraph [0061]).

6. In regards to claim 3, Azima discloses the panel-type speaker mounting structure, wherein the polarizing plate is made from a polarizing material (See paragraph [0055]).

### ***Response to Arguments***

7. Applicant's arguments filed 11/13/06 have been fully considered but they are not persuasive.

8. Applicant argues that Bank does not fairly teach, disclose, or reasonably suggest, "...a second portion extended from the first portion, for mounting a panel-type

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speaker to the lower surface of the second portion of the polarizing plate.” Applicant further argues that Bank is concerned with the overall modality of the transducers whereas the present invention is directed to a panel-type speaker mounting structure.

9. In regards to Bank not fairly teaching, disclosing, or reasonably suggesting, “...a second portion extended from the first portion, for mounting a panel-type speaker to the lower surface of the second portion of the polarizing plate,” Examiner respectfully disagrees. Bank does teach, disclose, and reasonably suggest, a second portion (e.g., bimorph beam 88 and piezoelectric beam 51) extended from the first portion (e.g., bimorph beam 90 and piezoelectric beam 43), for mounting (See Abstract, paragraph [0005], and paragraph [0062]) a panel-type speaker (e.g., transducer, actuator, exciter) (See Fig. 2 and transducer 86) to the lower surface (See Fig. 2, bimorph beam 88 and Fig. 5, piezoelectric beam 51) of the second portion of the polarizing plate (e.g., piezoelectric material/plate) (See Fig. 2, Fig. 5, paragraph [0054 - 0055], paragraph [0059], and paragraph [0061]). The claims and drawings (See Fig. 2-4) of the present invention merely recite how and/or where a panel-type speaker (e.g., transducer) is positioned/mounted within a device, such as a mobile phone or wireless telephone. Bank, clearly, discloses this same feature. As can be seen in Fig. 2 and Fig. 4, Bank is also concerned with the positioning/mounting of a panel-type speaker (See transducer 86 and transducer 158) (See paragraph [0033] – [0034] and paragraph [0057]). As can be seen in the above paragraphs, Bank discloses, teaches, and reasonably suggests a transducer being mounted at a location where the number of resonance nodes is relatively high and conversely the number of resonance nodes is relatively low, along

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38% to 62% along each of the length and width axes of the acoustic radiator, or near an edge of the panel to excite it to produce vibration to produce an acoustic output.

Therefore, Bank does teach, disclose, and reasonably suggest a panel-type speaker mounting structure.

### ***Conclusion***

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

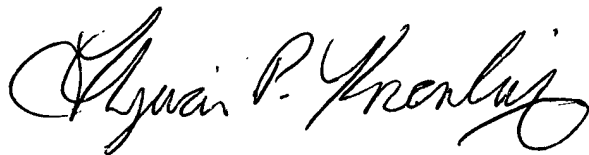
11. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thjuan P. Knowlin whose telephone number is (571) 272-7486. The examiner can normally be reached on Mon-Fri 8:30-5:00pm.

13. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ahmad Matar can be reached on (571) 272-7488. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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14. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



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